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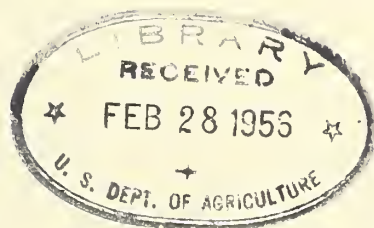
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COTTON REPORTING MANUAL



FOREIGN SERVICE DIVISION
FAS - USDA
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NOTES AND DEFINITIONS REGARDING TERMS USED IN COTTON REPORTING

The following alphabetical list of terms covers a number of principal items included in the cotton reporting schedule. In these an effort is made to further clarify what is needed in reports. In addition the list includes a number of terms which reporting officers will encounter in talks with the trade and which they will need to understand.

1. Acreage and production. If such figures are readily available, exporting countries are requested to give a breakdown on acreage and production for the principal geographic areas and/or varieties, depending on trade usage. For example, in Mexico it would be by regions--Matamoros, Mexicali, etc., while in Egypt it would be by varieties--Karnak, Ashmouni, etc. Such information is requested only when the variety or region of origin maintains its identity in international trade. It is not necessary to include in each report statistics by geographic subdivision on varieties when such a breakdown is not used in selling the cotton abroad. However, knowledge of where, within the country, the cotton is grown, is exceedingly useful in Washington and should be reported every two or three years, particularly in major producing countries. Dot maps, or any other type of map, showing this, which can frequently be obtained from the Government agency concerned with cotton, are even better for this purpose than detailed statistics. Three copies should be obtained if readily available. See also "Crop Year," and "Bale of Cotton."

2. Bale of cotton. Bale weights differ from country to country and even within a country. Therefore, it is essential that the average weight used for the figures reported be given. Actual bales as they come from the gin vary considerably in weight. These are called "running bales" - bales of unspecified weight. Most United States figures are reported that way. However, the official size used by the U. S. Department of Agriculture for statistical purposes is 500 pounds gross or 480 pounds net. The International Cotton Advisory Committee uses 500 pounds gross but 478 pounds net. Egyptian bales average about 730 pounds net, while in India and British Empire countries the usual net weight is 392 to 400 pounds. So it is important to indicate the weight.

Likewise, it is important to report whether the weights are net or gross (See "Weight, net"). In the United States and Mexico, cotton is sold locally by gross weight; elsewhere usually by net weight. When exported, however, American and Mexican cotton are sold by net weight. Net metric ton figures as received in Washington are converted to United States bales of 500 pounds gross by use of the multiplier 4.592917; for gross metric tons the multiplier is 4.4092. Cotton in bales may gain or lose weight through atmospheric influences; this can be as much as 10 per cent in extreme cases. At 70° Fahrenheit and 65 per cent relative humidity the moisture content is about 8 per cent.

Bale sizes and the density to which they are compressed also vary greatly, but this should not disturb the reporting officer since all cotton quantities should be reported by weight or by number of bales (of specified weight).

3. Capacity - How many shifts constitute full capacity for textile mills?

This question is frequently asked when the reporter wants to indicate the extent to which the textile industry is running at full capacity. There is no single answer since practices differ from country to country. Some mills are geared up to run at three shifts a day, others at two. The average number of shifts currently employed as compared with previous periods gives the best indication. The number of spindles idle, or in use, (ring and mule spindles shown separately if available), compared with previous periods, is also a useful indicator of mill activity. Calculate capacity of mule spindles at $\frac{2}{3}$ that of ring spindles.

4. Character. A term in cotton classification which embodies all elements of quality not covered by grade and staple, particularly strength, fineness and silkiness, or coarseness and roughness. Character is largely a varietal characteristic, but relates also to soil and climatic conditions of growth.

Laboratory equipment is being used to an increasing extent to measure various aspects of character. Among the more common instruments are the Micronaire machine which measures fineness and maturity, the Presley tester which measures fiber strength and the Fibrograph which arrays the fibers and indicates the range of fiber length in the sample. It would be helpful if the reporting officer could give any readily available indication of the extent to which laboratory descriptions are being used in buying and selling cotton.

5. Cotton. The term "cotton" when used alone means cotton fiber that has been ginned, i.e., removed from the seed. It is synonymous with "lint cotton" or "raw cotton" as the term is used in the United States. It is not seed cotton, the latter being unginned and including both seed and lint. When discussing production it is better to use the term lint cotton in order to prevent misunderstanding, since a few areas of the world still report production in terms of seed cotton which they designate as "raw cotton." Any figures collected in terms of seed cotton should be converted to lint cotton before they are reported. If a more exact conversion figure is not available for the local cotton, use the rough proportion of one-third lint and two-thirds seed. In all such conversions the report should state that the figures were converted and the ratio at which the conversion was made.

"Raw cotton" is the term normally used in contrast with cotton yarn or cloth to show that the cotton has not been manufactured.

"Cotton" does not include "linters" or waste." (See definitions below). These items, if included in a cotton report, should never be combined with lint cotton in the statistics.

6. Cotton products. This includes manufactured cotton in any form. Any reporting made on this subject is best divided into two headings:
- a. Cotton yarn - which is cotton spun into linear form suitable for weaving, knitting, thread making, etc. Though yarn is always further processed before it is consumed, statistics on yarn production are important because much cotton yarn is traded locally and exported, and yarn stocks are sometimes held for considerable time before being used. Substantial changes in stocks of yarn are usually reflected later in reverse changes in mill consumption of raw cotton.
 - b. Manufactured cotton other than yarn - most important item under this heading is piece goods, sometimes called yard goods, which is any woven cloth made in a continuous strip. Statistics on piece goods are more readily available than those on other items under this sub-heading and provide a satisfactory index of production and stock of manufactured cotton other than yarn.

Other lesser important types of manufactured cotton are goods which are woven in finished forms, such as towels and bathmats, knitted goods, such as hose and sweaters, ready-made clothing and household supplies, such as women and children's dresses, men's suits, bed sheets and pillow cases, and cotton which is consumed without being spun, such as that used in mattresses, upholstery stuffing and medicated cotton.

7. Cotton, types of. Commercial cottons of the world are of three distinct botanical types.
- a. American upland. (*Gossypium hirsutum*). This makes up the great bulk of the world's production. It constitutes over 99 per cent of the cotton grown in the United States. The cotton originated in the highlands of Mexico and Guatemala and the name "upland" was originally used in the United States to distinguish this cotton from "sea island" an extra long staple grown along the coast. Today American "upland" is grown throughout the United States cotton belt, in both high and low altitudes, and under both irrigated and rain-grown conditions.
 - b. Egyptian extra-long staple type. (*Gossypium barbadense*). This, native to eastern Peru and northern Brazil, is grown mainly in Egypt, the Anglo-Egyptian Sudan, and Peru, and in other countries in lesser quantities. The United States now produces around 25,000 to 100,000 bales annually.
 - c. Asiatic type. (This term includes two botanical species: *Gossypium herbaceum* and *Gossypium arboreum*). This is a very short staple cotton which is called by varying names in different localities. It originated presumably in India or Pakistan and its main

production is now in India, Burma and in Communist China, where there is also a small production of American Upland. Pakistan also produces a sizable quantity of this cotton. The extent to which each of these types of cotton can be substituted for the other is limited. Therefore, it is quite helpful if the reporting officer can give separate figures for each type, or at least indicate roughly the role of each type in the country's cotton economy.

8. Crop year. This term is a misnomer, since it actually refers to the marketing year. Thus the United States official cotton crop year runs from August 1 through July 31. It is designed to begin just prior to the beginning of the harvest season. To add to the complication, reference to "cotton production in the United States during the 1954-55 crop year" means cotton that was planted in the spring of 1954 before the so-called crop year began.

World production and trade figures are normally published by the U. S. Government on August-July crop year basis so as to be of maximum use in the United States. This obviously creates problems for reporters in other cotton-producing countries since their crop years seldom coincide exactly with that of the United States. To minimize this difficulty production in other countries can be reported on the basis of the crop year in that country, i.e., the year beginning with the start of the local harvest. The exact dates of the crop year used should always be clearly indicated, as well as the dates of the cotton picking season.

In those countries - such as Peru, Colombia, and Brazil - where cotton is produced in two or more widely separated areas that have distinctly different harvesting seasons, the various areas should be handled separately in the production statistics (as is now being done in the countries named) for most effective use in Washington. Nowhere should the production year be artificially broken at July 31 when that date falls within the period of local harvesting.

These comments refer only to production statistics. Annual imports and exports should still be given on the United States crop year basis, and stocks should be estimated as of July 31 for all countries in the annual report as is indicated below in the discussion of "Stocks."

9. Destroyed or unaccounted for. This caption replaces "Burned or otherwise destroyed" in previous Supply and Distribution tables, and is believed to be more descriptive of the actual material covered. It includes cotton burned or otherwise destroyed, but more important, it allows for minor adjustments to bring the table into balance. The need for such adjustments grows out of changes in weight of cotton (as a result

of varying atmospheric humidity) Loss through sampling, etc. No more than one per cent of the country's total cotton disappearance should be accounted for in this manner unless specific justification of a larger figure can be given.

10. Grade. The quality of ginned cotton in regard to cleanliness (i.e. freedom from leaf and foreign matter), color, and relative smoothness of ginning (preparation). Each major producing country has its own system of grading. American Upland cotton is graded according to the "Universal Standards for American Cotton" which are the official grade standards of the United States for Upland cotton. Middling is the basic grade to which price quotations ordinarily apply. Grades above Middling are known as high grades and those below as low grades.

11. Linters. The residual fuzzy fiber taken from the seed by special delinting machinery after ginning. Delinting is a process preparatory to the extraction of oil from the seed. The higher (longer) grades of linters are used mainly for felting. The lower (shorter) grades are used principally in industry for the manufacture of numerous cellulose products, such as rayon, films, and explosives. The cotton reports do not require coverage of linters.

12. Man-made fibers. (also called Synthetic fibers). World production of man-made fibers in 1953 was the equivalent of 10.2 million bales of cotton. Cotton's most important competitors in this group are the fibers made of cellulose, viscose rayon and acetate, which began to be commercially important after World War I and the products of which are now equivalent of 9.3 million bales of cotton. Both of these have sometimes been called rayon. Viscose rayon is made entirely of cellulose, while acetate is about 70 per cent cellulose. Wood pulp is the chief source of the cellulose, though cotton linters also are used.

Other man-made fibers that compete with cotton also are rapidly increasing in importance. From a beginning about 20 years ago, world production of these fibers in 1953 had reached the equivalent of 865,000 bales of cotton and it is expected to be double this figure in 1955. Included in this group are nylon, dacron, orlon, terylene, perlon, glass fiber and many others.

Man-made fibers are produced in two forms - continuous filament yarn and staple fiber. The former, as it comes from the manufacturer, is ready for knitting or weaving like yarns made of cotton. Staple fiber, which is made by chopping up continuous filament in the manufacturing process, is in a form similar to raw cotton and is subsequently spun and then woven or knitted on cotton or wool machinery, mostly cotton machinery. Not quite half of the world production of man-made fiber is produced in staple fiber form.

13. Nep. A very small tangled mass of cotton, generally adhering to a straight cotton fiber. Neps may be caused at any stage of cotton handling, particularly in machine handling. Some cottons nep more than others. Neps lower the quality of cotton cloth and hence are of considerable concern to the textile industry. Reporting on this point is not called for unless there are serious complaints or other indications of an appreciable change from previous years.

14. Prices. Price data are important from all major exporting and importing countries. For small importing countries they need be reported only if readily available.

In importing countries prices should be quoted for the cotton entering that market from each major country of origin. Where most of the imports from a given country fall within a relatively narrow range of grades and staple lengths, the cotton selected for price quotation should be within that range. However, when there is a very wide range of imports of American Upland type cotton, the reporter should select the grade and staple most nearly comparable to United States Middling grade and 15/16-inch staple. Local trade sources should be consulted to determine which foreign grades and staples meet these requirements. This rule cannot, of course, be followed in the case of extra long staple (Egyptian type) or Asiatic type short staple, since the former is longer and the latter shorter than the normal range of United States exported cotton.

In importing countries all prices should be quoted on a CIF basis, i.e., landed at local ports, cost, insurance, and freight paid. They should be quoted in the currency and units of weight of the importing country.

Exporting countries should report prices of the principal varieties or qualities of cotton being exported f.o.b. basis at ports.

Reporting countries, both importing and exporting, can best be divided into four categories with regard to price statistics:

- a. Those that submit weekly price cables. These cables provide sufficient statistics, but the comments requested below should be supplied.
- b. Countries that have an organized cotton market, i.e., an established cotton exchange which prepares daily price sheets. One copy of this sheet for one day each week can be airmailed to Washington in lieu of other statistics. These should be for the same day of each week; Thursday is preferable since that is the day used in countries that send prices by cable. Comments requested below should be included in scheduled reports.

- c. Those that have organized markets but do not publish price sheets. In these cases show for each quality selected the closing price on the last Thursday of each week, or for the latest preceding business day if Thursday falls on a holiday. Cover each week, up to the time of writing. Thursday is selected to give comparability with prices now being cabled to Washington from certain countries.
- d. All other countries are apt to have fixed Government price or base their prices on an organized market in some other country. In such cases reports should explain how prices are presently determined and show the general level of prices of the selected classes of cotton in the local market during the period covered and the degree of fluctuations, along with appropriate explanation.

A discussion of the general trend of prices, and the reasons therefor, both in the past and those anticipated in the future, are important to all price reporting. This should be included in all reports, regardless of the type of statistics available.

Government policy is of key importance in exporting countries and may affect such matters as changes in prices paid to farmers, export taxes, rates of exchange governing cotton exports, fixed prices for export, or flexible prices based on the New York Cotton Exchange or other flexible basis. Any such policy change should be reported immediately in a cable or special report. Likewise Government action affecting prices in importing countries should be reported promptly.

Rates of exchange for converting local currency to United States dollars should always accompany price data, as well as an indication of whether units of weight are gross or net.

15. Re-Exports. These should be shown separately in the discussion of "Exports." Countries of destination and/or of origin of the raw cotton should be indicated in the export figures. Likewise, imports which are later exported should not be included in the import figures. If it is not possible to separate out the re-exports the combined figure should be reported but the officer should indicate his estimate of the portion which is re-exports.

Cotton passing through the country in bond should likewise be excluded from import and export statistics, and need not be reported.

16. Staple length - the length of the fiber. Fifteen-sixteenth inch cotton is the basic length to which United States price quotations ordinarily apply. Since wide variations of fiber lengths exist in all cotton, the length is usually measured at about the upper quartile by weight of an array of the fibers. Actually considerable latitude is taken in commercial

practice, and staple description should be used cautiously, especially in comparisons. Rather than use a term such as "short staple," it is better to indicate the actual range of lengths referred to.

That considerable variation of meaning of the same term exists in different countries will be seen in the following table:

Cotton Staple Classifications
(In inches)

| | <u>United States</u> | <u>Egypt</u> | <u>India</u> |
|--------------------------|----------------------|------------------|-------------------|
| Short staple | 15/16 and shorter | 1 1/8 to 1 1/4 | 11/16 and shorter |
| Medium staple | 31/32 to 1 1/8 | 1 1/4 to 1 3/8 | 11/16 to 13/16 |
| (Superior medium staple) | | | |
| Long staple | 1 1/8 to 1 1/2 | 1 3/8 and longer | 7/8 to 31/32 |
| (Superior long staple) | | | 1 inch and longer |
| Extra long staple | 1 1/2 and longer | | |

17. Stocks. Roughly speaking, stock figures should include all cotton physically within the country. The only exception - i.e., the cotton physically within the country which should be excluded - is imported cotton that has not cleared customs or cotton destined for export that has cleared customs. Cotton that has been sold for export should still be included as long as it is still within the country and has not cleared customs for export. Some sources, when asked for stock figures, quote only mill stocks, port stocks, or stocks still unsold, but do not identify them as such. Sometimes mill stocks are the only figures available. In that case they are better than nothing, but it should be clearly stated that they are only mill stocks. Because of the frequent difficulty with incomplete stock figures, reporting officers are requested to define clearly what is included in the figures they use. Where one part of the stock figure is relatively firm and another part a rough estimate, the two should be shown separately. Imported cotton held on consignment in the country which has cleared customs should be included in the stock figure. However, it would be helpful if the quantity of such cotton by countries of origin could be indicated.

Southern Hemisphere reporters have a special problem of estimating stocks as of July 31 since that date falls within the harvesting season of a number of these countries. All Southern Hemisphere reports should include in the July 31 stock figure all old crop cotton still on hand, plus all new crop cotton, whether harvested or not, which has not been exported or consumed. The figure is normally computed by starting with the stock figure at the beginning of the picking season, adding the total production estimate for the new crop and subtracting the amounts consumed and exported from the beginning of the picking season to the end of July. The various figures used in this calculation should be included in the report. The reporting

schedule for major Southern Hemisphere cotton producing countries also calls for a Supply and Distribution report at the end of the local crop year, to be submitted by March 20. At that time stocks would be at their low point and there should be no duplication between carry-over stocks and current production. It should be noted that the total supply in the March 20 report should be much lower than in the September 20 report. Moreover, it should be easier to get total supply and total distribution into balance.

18. Tare. The bagging wrapped around the bale (burlap, jute, or cotton cloth), plus the metal ties (bands, hoops, or wire) which secure it. Weight of the tare varies from one producing country to another and to some extent from bale to bale. The cotton exchange of the major port city in each importing country fixes maximum and minimum limits on the weight of tare allowed for the cotton of each producing country. Thus the tare on bales exported from the United States varies considerably, depending primarily on the country of destination; but for all destinations as a whole it averages about 24 pounds (15 pounds of bagging - including patches if any - and 9 pounds of ties).

19. Waste, cotton. Cotton fiber discarded by the various machines used in spinning and weaving. It also includes floor sweepings in cotton mills. "Soft" waste from cards and combers is largely spun. "Hard" waste is used for machine wiping, journal box packing, etc.

Statistics of cotton imports, exports, stocks and consumption published in any country should be scrutinized for evidence of possible inclusion of linters and waste. If found, they should be separated out. Cotton reports do not require coverage of cotton waste.

20. Weight, net. The actual weight of a bale after deduction of bagging and ties or of bagging, ties and patches. Gross weight includes bagging, ties and patches.

21. Yarn and textiles - conversion to raw cotton. Frequently the reporting officer has figures on stocks of cotton yarn or textiles and wants some indication of the volume of raw cotton which they represent. Roughly one net (i.e. excluding bagging and ties) pound of raw cotton will produce 0.9 pounds of yarn. Conversion of square yards of textiles to cotton is much more difficult. One pound of raw cotton will make about 3.3 square yards of average weight textiles. However, the figure will vary greatly, depending on the coarseness or fineness of the cloth; countries' averages will also vary, depending on the types of cloth that make up the bulk of the local production. Figures on the weight of textiles are therefore much more valuable than those on yardage. A pound of yarn will make about a pound of textiles and can be roughly converted on a 1:1 ratio.

